

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of: U.S. Patent No. 6,493,419

Serial No.: 09/884,229
Filed: June 19, 2001
Issued: December 10, 2002

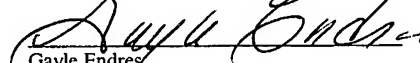
Inventor: Mark Dinsmore

Title: **OPTICALLY DRIVEN THERAPEUTIC RADIATION SOURCE HAVING
A SPIRAL-SHAPED THERMIONIC CATHODE**

CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail under 37 CFR 1.8(a) in an envelope addressed to Mail Stop REISSUE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Date: 3/1/04


Gayle Endres

Mail Stop **REISSUE**
Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

**COMBINED DECLARATION AND POWER OF ATTORNEY
IN REISSUE APPLICATION**

Sir:

I, Mark Dinsmore, declare that:

1. My residence address is 85 Horse Pond Road, Sudbury, MA.
2. I am a citizen of the United States of America.
3. I believe I am the original, first and sole inventor of the subject matter that is

described and claimed in United States Patent Number 6,493,419 (hereinafter "the '419 patent"),
granted on December 10, 2002, and for which I solicit a reissue patent.

4. I have read and understand the contents of the attached reissue application, including the specification and claims.

5. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

6. I believe the '419 patent, which matured from application Serial No. 09/884,229, filed on June 19, 2001, to be wholly or partly inoperative or invalid by reason of my claiming less than I had a right to claim in the patent. The error includes not having claimed a probe having a radiation source at a distal end, and including: a) a probe assembly including an optical delivery structure adapted for transmitting optical radiation; b) an optical source for generating optical radiation directed to an end of said optical delivery structure; c) a radiation source coupled to a distal end of said optical delivery structure, said radiation source comprising a thermionic cathode and a target element; i) wherein the thermionic cathode is responsive to said optical radiation transmitted to said distal end to emit electrons, and wherein said thermionic cathode comprises a spiral-shaped conductive element; and ii) wherein said target element is responsive to incident electrons emitted from said thermionic cathode to emit radiation; d) means for establishing an accelerating electric field extending between said electron source toward said target element, the electric field being effective to accelerate electrons emitted from the thermionic cathode toward said target element; wherein said optical delivery structure is adapted to direct a beam of optical radiation transmitted therethrough to impinge upon a surface of the thermionic cathode, and wherein said beam of transmitted optical radiation has a power level sufficient to heat at least a portion of said surface to an electron emitting temperature so as to cause thermionic emission of electrons from said surface.

7. All errors being corrected in the reissue application, up to the time of filing this declaration, arose without any deceptive intent.

8. I appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Mark G. Lappin, Registration No. 26,618
Toby H. Kusmer, Registration No. 26,418
Elizabeth E. Kim, Registration No. 43,334
David M. Mello, Registration No. 43,799
Jeffrey J. Miller, Registration No. 39,773
Brian Colandreo, Registration No. 42,427
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SEND CORRESPONDENCE TO:

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Mark G. Lappin (617-535-4043)

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date

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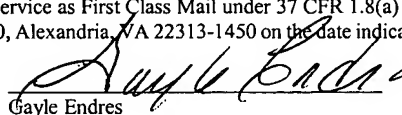
Inventor: Mark Dinsmore

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Gayle Endres

Mail Stop REISSUE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ASSENT OF ASSIGNEE TO REISSUE

Sir:

The undersigned **Carl-Zeiss-Stiftung**, doing business as **Carl Zeiss**, a legal person of Germany, with a post address **Carl Zeiss Strass 22, 73447 Oberkochen, Germany**, assignee of the entire interest in the above-mentioned Letters Patent, hereby assents to the accompanying reissue patent application. Attached is a "Statement Under 37 CFR 3.73(b)," establishing the right of the assignee, **Carl-Zeiss-Stiftung**, doing business as **Carl Zeiss**, to take action in this reissue application. The undersigned is empowered to sign this certificate on behalf of the assignee.

Respectfully submitted,

**CARL-ZEISS-STIFTUNG,
doing business as CARL ZEISS**

Date: _____

By: _____

Printed Name: _____

Title: _____

Statement Under 37 CFR 3.73(b)

Applicant/Patent Owner: Mark Dinsmore / Carl Zeiss

Application No./Patent No.: 09/884,229/6,493,419 Filed/Issue Date: 06/19/01/12/10/02

Entitled: OPTICALLY DRIVEN THERAPEUTIC RADIATION SOURCE HAVING A SPIRAL-SHAPED THERMIONIC CATHODE

Carl-Zeiss-Stiftung, doing business as Carl Zeiss, a legal person of Germany

(Name of Assignee)

(Type of Assignee)

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: _____ To: _____

The document was recorded in the Patent and Trademark Office at

Reel _____ Frame _____, or for which thereof is attached.

2. From: _____ To: _____

The document was recorded in the Patent and Trademark Office at

Reel _____ Frame _____, or for which thereof is attached.

3. From: _____ To: _____

The document was recorded in the Patent and Trademark Office at

Reel _____ Frame _____, or for which thereof is attached.

☐ Additional documents in the chain of title are listed on at.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: _____

Name: _____

Title: _____

Telephone Number: _____

Signature: _____